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EXAMINER

STEVENS, ROBERT

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,496

Applicant(s)

GROSSMAN ET AL.

Examiner

Robert Stevens

Art. Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20050505.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 21 is objected to because of the following informalities: The word “and” exists between the 4th and 5th (i.e., next to last) limitation. The word “and” is missing between the 5th and 6th (i.e., last) limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1-20 and 28-30 are rejected under 35 U.S.C. 101** because the claimed invention is directed to non-statutory subject matter.

To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application with useful, concrete and tangible result.

Regarding independent claim 1: This claim does not produce a useful result. The method steps merely transfer data. It is noted that that the claim recites that contact data “can be presented”, but there is no positive recitation that such a limitation must occur.

Regarding independent claim 15: This claim does not produce a useful result. The claim recites a receiving of data and a conversion of data. The data is not used. It is further noted that access of that data is not required, because there is no positive recitation of such a requirement (i.e., "can access" does not require access).

Regarding independent claim 28: This claim does not produce a useful result. The claim recites a receiving of data, conversion of the data, and a storing of the data. The data is not used. It is further noted that access of that data is not required, because there is no positive recitation of such a requirement (i.e., "can access" does not require access).

Claims 1, 15, 28, and the claims that depend on them, are not patent eligible because the invention recited therein does not produce a useful, concrete and tangible result.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1: This claim recites a correspondence between two types of data (schematized and non-schematized), but appears to have omitted an essential step for establishing that correspondence. As such, the scope of the claim is vague and indefinite.

Claims 2-14 are dependent upon claim 1, and are therefore likewise rejected.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-30 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Balaji et al. (US Patent Application Publication No. 2005/0015439, filed Jul. 15, 2003 and published Jan. 20, 2005, hereafter referred to as "Balaji") in view of Chris Hibbert ("Visual Flex and XML", downloaded from www.dataaccess.com/whitepapers/xml/XMLWP.htm, dated by Wayback Machine as: May 2, 2001, pp. 1-25, hereafter referred to as "Hibbert").

Regarding independent claim 1: Balaji discloses *In a computing system that has access to schematized data and that is in communication with applications configured to request access to the schematized data, one or more of the applications lacking the configuration to natively access the schematized data, (See Balaji Abstract, discussing the providing for data integration and exchange among a plurality of applications.) a method for simplifying access to the schematized data, (See Balaji Abstract, noting its flexible architecture.) the method comprising: an act of receiving a request to access schematized data, the request being received at an application that lacks the configuration to natively access schematized data; (See Balaji paragraph [0029], discussing the ability to send data from a client application using a first format.) an act of calling an external data control that abstracts the formatting of the schematized data from the application; (See Balaji Figure 2 #150 schema generator and #156 DTD generator.) and an act of receiving non-schematized data that corresponds to the requested schematized data such that data can be presented at the application notwithstanding that the application lacks the configuration to natively access schematized data. (See Balaji paragraph [0029], discussing the ability to receive data in a second format.)*

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides an exemplary schema fragment of contact data.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Hibbert for the benefit of Balaji, because to do so allowed a programmer to ensure that an XML file conformed to an intended definition (i.e., was valid), as

taught by Hibbert on page 14 in the entitled “DTDs and Schemas”. These references were all applicable to the same field of endeavor, i.e., XML-based system development.

Regarding claims 2-3: Balaji teaches requests to convert via a schema-based system.. (See Balaji Figure 2, especially #150, #12a and #12b, in the context of the Abstract, discussing the ability to exchange data among a plurality of applications. It is further noted that a process can forward data to any other process, regardless of authorization, because authorization harkens to the accessing of the process, not the mere sending of data to that process.)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitles “Schemas”, which states that schemas and DTDs perform the same function, and provides an exemplary schema fragment of contact data.)

Regarding claims 4-11: Balaji teaches requests to interact with a processing module. (See Balaji Abstract, discussing an architecture to facilitate data integration and exchange. It is further noted that the recited limitations present a list of well-known features that are outside of the application’s inventive crux of data transformation via a schema-based system.)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitles “Schemas”, which states that

schemas and DTDs perform the same function, and provides and exemplary schema fragment of contact data.)

Regarding claims 12-13: Balaji does not explicitly teach the use of contact data and presentation templates. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides and exemplary schema fragment of contact data.) Hibbert further discloses the well-known use of CSS and XSL. (See Hibbert page 21 sections entitled “StyleSheets: CSS and XSL” and “XSL”, discussing commonly known formatting templates.)

Regarding claim 14: Balaji does not explicitly teach the use of contact data or setting a default value. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides and exemplary schema fragment of contact data. Also see Hibbert page 20 section entitled in bold as “The qualifiers change as well”, which shows the assignment of default values for the variable set minOccurs=0 and maxOccurs=*.)

Regarding independent claim 15: Balaji discloses *In a computing system that has access to schematized data and that is in communication with applications configured to request access to schematized data, one or more of the applications lacking the configuration to natively access schematized data*, (See Balaji Abstract, discussing the providing for data integration and exchange among a plurality of applications.) *a method for simplifying access to the schematized data*, (See Balaji Abstract, noting its flexible architecture.) *the method comprising: an act of receiving non-schematized data that is to be included in schematized data, the non-schematized data being received at an application that lacks the configuration to natively access schematized data*; (See Balaji paragraph [0029], discussing the ability to send data from a client application using a first format.) *an act of calling an external data control that abstracts the formatting of the schematized data from the application*; (See Balaji Figure 2 #150 schema generator and #156 DTD generator.) *and an act of updating schematized data based on the non-schematized data such that the other applications can access the updated schematized data and notwithstanding that the application lacks the configuration to natively access schematized data*. (See Balaji paragraph [0029], discussing the ability to receive data in a second format, in the context of paragraph [0033], discussing the integration of new data.)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides an exemplary schema fragment of contact data.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Hibbert for the benefit of Balaji, because to do so allowed a

programmer to ensure that an XML file conformed to an intended definition (i.e., was valid), as taught by Hibbert on page 14 in the entitled “DTDs and Schemas”. These references were all applicable to the same field of endeavor, i.e., XML-based system development.

Regarding claims 16-17: Balaji teaches requests to convert via a schema-based system.. (See Balaji Figure 2, especially #150, #12a and #12b, in the context of the Abstract, discussing the ability to exchange data among a plurality of applications. It is further noted that a process can forward data to any other process, regardless of authorization, because authorization harkens to the accessing of the process, not the mere sending of data to that process.)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides an exemplary schema fragment of contact data.)

Regarding claim 18: Balaji does not explicitly teach the use of contact data and validation. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides an exemplary schema fragment of contact data.) Hibbert further discloses document validation. (See Hibbert page 16 section entitled “DTDs and Schemas”, discussing document

validation, it having been an obvious variant as to whether a document is validated and the format that the document is in [when the validation process was performed].)

Regarding claim 19: Balaji teaches translating non-schematized data into schematized data. (See Balaji Abstract in the context of Figure 2, teaching the ability to exchange data among a plurality of applications. Also see Balaji paragraph [0029], discussing data transformation among application data formats.)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides an exemplary schema fragment of contact data.)

Regarding claim 20: Balaji teaches centralized data storage. (See Balaji Figure 1 #22, Figure 2 #22 and #28, and Figure 3 #28.)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides an exemplary schema fragment of contact data.)

Regarding independent claim 21: Balaji discloses *A computing system*, (See Balaji Figure 2.) *comprising: one or more processors*; (See Balaji Figure 2, showing client applications #12a and #12b, it having been implied that these applications would have run on at least one processor.) *and one or more computer-readable media, having stored thereon schematized data, one or more applications that are not configured to natively access the schematized data, and at least one data control that can be executed by the one or more processors, the at least one data control abstracting schematized data from applications*, (See Balaji Figure 2, showing a data store #18, a schema registry #152, applications #12a and #12b, and adapter APIs #30 associated with each application.) *the at least one data control being configured to: receive a request from an application that lacks the configuration to natively access the schematized data*; (See Balaji paragraph [0031], discussing the reception of a query by the calling application, and paragraph [0029], discussing the ability to receive data in a first format.) *retrieve schematized data in response to the request*; (See Balaji Figure 2, showing application interface path to the schematized data, and paragraph [0029], discussing the ability to send data from a client application using a first format.) *and convert retrieved schematized data to corresponding non-schematized data such that the application can present data notwithstanding that the application lacks the configuration to access the schematized data directly*; (See Balaji paragraph [0029], discussing the ability to receive data in a second format.) *send the non-schematized data to the application*. (See Balaji paragraph [0029], discussing the ability to receive data in a second format, in the context of paragraph Figure 2 #104, showing the sending of data to application #12b.)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that

schemas and DTDs perform the same function, and provides and exemplary schema fragment of contact data.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Hibbert for the benefit of Balaji, because to do so allowed a programmer to ensure that an XML file conformed to an intended definition (i.e., was valid), as taught by Hibbert on page 14 in the entitled “DTDs and Schemas”. These references were all applicable to the same field of endeavor, i.e., XML-based system development.

Regarding claims 22-23: Balaji does not explicitly teach the use of contact data and presentation templates. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that schemas and DTDs perform the same function, and provides and exemplary schema fragment of contact data.) Hibbert further discloses the well-known use of CSS and XSL. (See Hibbert page 21 sections entitled “StyleSheets: CSS and XSL” and “XSL”, discussing commonly known formatting templates, it having been an obvious variant as to the specific display presented.)

Claims 24-27 are substantially similar to claims 5, 7, 8 and 14, respectively, and therefore likewise rejected

Regarding independent claim 28: Balaji discloses *A computing system*, (See Balaji Figure 2.) *comprising: one or more processors;* (See Balaji Figure 2, showing client applications #12a and #12b, it having been implied that these applications would have run on at least one processor.) *and one or more computer-readable media, having stored thereon schematized data, one or more applications lacking the configuration to natively access the schematized data, and at least one data control that can be executed by the one or more processors, the at least one data control abstracting schematized data from applications,* (See Balaji Figure 2, showing a data store #18, a schema registry #152, applications #12a and #12b, and adapter APIs #30 associated with each application.) *the at least one data control being configured to: receive non-schematized data;* (See Balaji paragraph [0029], discussing the ability to receive data in a second format.) *convert the non-schematized data to corresponding schematized data that conforms with a data schema such that an application can update schematized data notwithstanding that the application lacks the configuration to natively access the schematized data;* (See Balaji paragraph [0029], discussing the ability to receive data in a second format, in the context of paragraph Figure 2 #104, showing the sending of data to application #12b.) *and store corresponding schematized data such that other applications can access the stored schematized data in accordance with the data schema.* (See Balaji Figure 1 #22, showing a schema registry accessible to many client applications [each labeled as “#12”].)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitled “Schemas”, which states that

schemas and DTDs perform the same function, and provides and exemplary schema fragment of contact data.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Hibbert for the benefit of Balaji, because to do so allowed a programmer to ensure that an XML file conformed to an intended definition (i.e., was valid), as taught by Hibbert on page 14 in the entitled “DTDs and Schemas”. These references were all applicable to the same field of endeavor, i.e., XML-based system development.

Regarding claim 29: Balaji teaches parsing of data. (See Balaji paragraph [0029].)

However, Balaji does not explicitly teach the use of contact data. Hibbert, though, discloses the use of contact data. (See Hibbert page 19 section entitled “DTDs”, showing contact data abstracted as a DTD, in the context of page 20 section entitles “Schemas”, which states that schemas and DTDs perform the same function, and provides and exemplary schema fragment of contact data.)

Claim 30 is substantially similar to claim 18, and therefore likewise rejected.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Non-patent Literature

Dogac, Asuman, et al., "An ebXML Infrastructure Implementation through UDDI Registries and RosettaNet PIPs", ACM SIGMOD 2002, Madison, WI, Jun. 4-6, 2002, pp. 512-523.

Ren, Ligang, et al., "Data Synchronization in the Mobile Internet", The 7th Intl Conf on CSCW in Design, Sep. 25-27, 2002, pp. 95-98.

Su, Hong, et al., "Automating the Transformation of XML Documents", WIDM 2001, Atlanta, GA, Nov. 2001, pp. 68-75.

Lee, Jinho, et al., "An Evaluation of the Incorporation of a Semantic Network Into a Multidimensional Retrieval Engine", CIKM '03, New Orleans, LA, Nov. 3-8, 2003, pp. 572-575.

McCabe, M. Catherine, et al., "On the Design and Evaluation of a Multi-Dimensional Approach to Onformation Retrieval", SIGIR 2000, Athens, Greece, Jul. 2000, pp. 363-365.

Bussler, Christoph, et al., "A Conceptual Architecture for Semantic Web Enabled Services", SIGMOD Record, Vol. 31, No. 4, Dec. 2002, pp. 24-29.

Nejdl, Wolfgang, et al., "EDUTELLA: A P2P Networking Infrastructure Based on RDF", WWW 2002, Honolulu, HI, May 7-11, 2002, pp. 604-615.

US Patent Application Publications

Dettinger et al	2004/0254939
Roller et al	2002/0035562
Dettinger et al	2005/0114318

PCT Publications

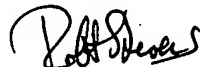
Horvitz et al	WO 02/073454
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Contact Information


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Stevens whose telephone number is (571) 272-4102. The examiner can normally be reached on M-F 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Robert Stevens
Examiner
Art Unit 2162

August 30, 2006


SHAHID ALAM
PRIMARY EXAMINER